

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371U S APPLICATION NO. (if known, see 37 CFR 1.5)
10/018504INTERNATIONAL APPLICATION NO.
PCT/EP99/02943INTERNATIONAL FILING DATE
APRIL 30, 1999

PRIORITY DATE CLAIMED

TITLE OF INVENTION
ORTHOSIS CUFFAPPLICANT(S) FOR DO/EO/US
DOROTHEA VON MAXIMILIAN-WOLFF ET AL.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

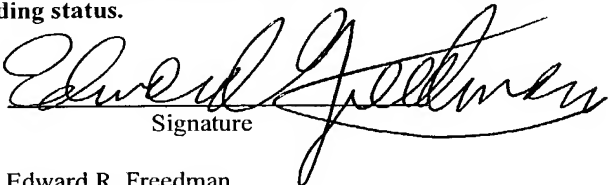
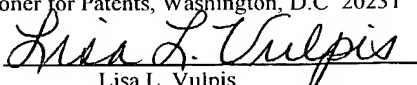
1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(l).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau)
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has **NOT** expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:

PCT/ISA/210 - Int'l. Search Report
4 Sheets of Formal Drawings

Applicant Claims Priority under 35 U.S.C. §120 of: PCT No. PCT/EP99/02943 filed April 30, 1999.

APPLICATION NO. (if known, see 37 CFR 1.5)				10/018504		INTERNATIONAL APPLICATION NO PCT/EP99/02943		ATTORNEY'S DOCKET NO WOLFF, D ET AL PCT			
<input checked="" type="checkbox"/> The following fees are submitted: Basic National Fee (37 CFR 1.492(a)(1)-(5)): Search Report has been prepared by the EPO or JPO. . . . \$890.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) \$710.00 Neither international preliminary examination fee paid (37 CFR 1.82) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO. . . . \$1,040.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) . \$100 ENTER APPROPRIATE BASIC FEE AMOUNT =						CALCULATIONS		PTO USE ONLY			
						\$ 890 00					
Surcharge of \$130.00 for furnishing the oath or declaration later than ____ 20 ____ 30 months from the earliest claimed priority date (37 CFR 1.492(e))											
Claims	Number Filed	Number Extra	Rate								
Total Claims	8 - 20 =	- 0 -	X \$18.00	\$							
Independent Claims	1 - 3 =	- 0 -	X \$84.00	\$							
Multiple dependent claim(s) (if applicable)			+ \$280.00	\$							
TOTAL OF ABOVE CALCULATIONS =				\$ 890 00							
Reduction by 1/2 for Small Entity status.				\$ 445 00							
SUBTOTAL =				\$ 890 00							
Processing fee of \$130.00 for furnishing the English translation later than ____ 20 ____ 30 months from the earliest claimed priority date (37 CFR 1.492(f))				\$							
TOTAL NATIONAL FEE =				\$ 445 00							
Fee for recording the enclosed assignment (37 CFR 1.21(h)) The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property +				\$ 40 00							
TOTAL FEES ENCLOSED =				\$ 485.00							
				Amount to be. refunded		\$					
				charged		\$					
<input checked="" type="checkbox"/> Applicant claims Small Entity status. a. <input checked="" type="checkbox"/> A check in the amount of \$485.00 to cover the above fees is enclosed. b. ____ Please charge my Deposit Account No. 03-2468 in the amount of \$_____ to cover the above fees. A duplicate copy of this sheet is enclosed. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 03-2468. A duplicate copy of this sheet is enclosed. NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status. <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> SEND ALL CORRESPONDENCE TO: COLLARD & ROE, P.C. 1077 Northern Boulevard Roslyn, New York 11576-1696 (516) 365-9802 </div> <div style="width: 45%; text-align: center;">  Signature Edward R. Freedman Reg. No. 26,048 </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;"> Express Mail No. EL 871 448 522 US Date of Deposit October 29, 2001 I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Ass't. Commissioner for Patents, Washington, D.C. 20231 </div> <div style="width: 45%; text-align: center;">  Lisa L. Vulpis </div> </div>											

JC05 Rec'd PCT/PTO 29 OCT 2001

PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: DOROTHEA VON MAXIMILIAN-WOLFF ET AL (PCT)
PCT No.: PCT/EP99/02943 FILED: APRIL 30, 1999
TITLE: ORTHOSIS CUFF

PRELIMINARY AMENDMENT**BOX PCT**

Ass't. Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Preliminary to Examination, please amend the above-identified application as follows:

IN THE SPECIFICATION

Page 1, after the title, please insert as follows:

--CROSS REFERENCE TO RELATED APPLICATIONS

Applicants claim priority under 35 U.S.C. §120 of PCT/EP99/02943 filed April 30, 1999. The international application under PCT article 21(2) was not published in English.--

Page 6, paragraph 2, please amend as follows:

--FIGS. 5 and 6 are different views of an alternative embodiment of the cuff as defined by the invention.--

Page 7, last paragraph, please amend as follows:

--An orthotic cuff with a basically different structure is shown in FIGS. 5 and 6, where the functional component is a ring 7 that is made of elastic material and is open on one side. The elasticity of said material forces the cuff into its shape surrounding the lower leg. Said ring 7 either consists of highly elastic plastic, e.g. polycarbonate, or a highly elastic metal such as, for example stainless steel. The cuff so designed is placed around the lower leg like a clasp and then kept in position by the elastic rebound forces of the ring 7. The present embodiment of the cuff does not require any closing elements.--

A marked-up version is shown as Exhibit A.

IN THE CLAIMS

Please amend claim 3 as follows:

3. (Amended) The orthosis cuff according to claim 1, characterized in that the cuff (1) is produced from stiff leather or plastic and comprises a stiff functional component (2) surrounding the lower leg on all sides, as well as closing elements (6) overlapping each other and being located on the ends of the functional component (2).

Please amend claim 6 as follows:

6. (Amended) The orthosis cuff according to claim 1, characterized in that the cuff (1) is a ring (7) open on one side

and made of elastic material whose elasticity forces the ring into its form surrounding the lower leg.

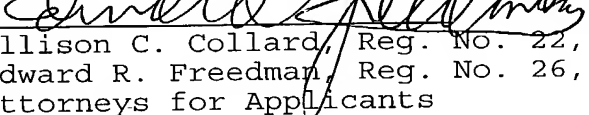
A marked-up version is shown as Exhibit B.

Please add the Abstract, attached hereto on a separate sheet.

REMARKS

By this Preliminary Amendment, a cross-reference to related applications has been inserted in page 1. The incorrect reference to the drawing FIGS. in the specification has been corrected. The claims have been amended so that the multiple dependency of certain of the dependent claims have been removed to avoid the surcharge associated therewith, and an Abstract is being provided. No new matter has been introduced. Entry of this amendment is respectfully requested.

Respectfully submitted,
DOROTHEA VON MAXIMILIAN-WOLFF
ET AL.

By: 
Allison C. Collard, Reg. No. 22,532
Edward R. Freedman, Reg. No. 26,048
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ERF/llv

Enclosure: Abstract

EXPRESS MAIL NO. **EL 871 448 522 US**

Date of Deposit: October 29, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.


Lisa L. Vulpis

ABSTRACT OF THE DISCLOSURE

The invention relates to an orthotic cuff for the treatment of Ledderhose's disease or hypermobile ankle joints, characterized by a cuff which is made of a stiff material, padded on the inside and encloses the calf proximally of the upper ankle joint. The cuff is adapted to fit the outer contour of the calf, leaves the upper ankle joint uncovered and contacts the outward facing area of the calf in such a way that it does not impair the mobility of the upper ankle joint and Achilles tendon and stabilizes the tibiofibular syndesmosis. The above orthotic cuff reduces movement between the distal ends of the tibia and fibula but permits allow other movements of the upper ankle joint. This modifies the sequence of movements in the upper ankle joint as well as the lifting and rolling movement of the foot when walking, and results in improved overall functioning of the ankle joint, notably a better distribution of pressure and thus greater capacity to support loads, as well as improved posture. In patients with Ledderhose's disease these improvements results in a significant decrease in ankle pain.

EXHIBIT A

VERSION WITH MARKINGS TO SHOW CHANGES
MADE TO SPECIFICATION

Page 6, paragraph 2, please amend as follows:

--FIGS. [6] 5 and [7] 6 are different views of an alternative embodiment of the cuff as defined by the invention.--

Page 7, last paragraph, please amend as follows:

--An orthotic cuff with a basically different structure is shown in FIGS. [6] 5 and [7] 6, where the functional component is a ring 7 that is made of elastic material and is open on one side. The elasticity of said material forces the cuff into its shape surrounding the lower leg. Said ring 7 either consists of highly elastic plastic, e.g. polycarbonate, or a highly elastic metal such as, for example stainless steel. The cuff so designed is placed around the lower leg like a clasp and then kept in position by the elastic rebound forces of the ring 7. The present embodiment of the cuff does not require any closing elements.--

EXHIBIT B

VERSION WITH MARKINGS TO SHOW CHANGES
MADE TO CLAIMS 3 AND 6

Please amend claim 3 as follows:

3. (Amended) The orthosis cuff according to [claims 1 and 2] claim 1, characterized in that the cuff (1) is produced from stiff leather or plastic and comprises a stiff functional component (2) surrounding the lower leg on all sides, as well as closing elements (6) overlapping each other and being located on the ends of the functional component (2).

Please amend claim 6 as follows:

6. (Amended) The orthosis cuff according to [claims 1 and 2] claim 1, characterized in that the cuff (1) is a ring (7) open on one side and made of elastic material whose elasticity forces the ring into its form surrounding the lower leg.

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JC05 Rec'd PCT/PTO 29 OCT 2001

ORTHOSIS CUFF

The invention relates to an orthosis cuff for the treatment or therapy of Ledderhose's disease or hypermobile ankle joints.

Ledderhose's disease is known to be a particularly painful contraction of the plantar fascia of the foot, in connection with which small nodules and nodes form in the region of the sole of the foot, which stand out against the low-cell fibrous tissue as aponeuroses. The pain is felt primarily in the region of the sole of the foot. It is almost no longer possible to stand up on the affected foot. The etiology of this disease is open to question. All therapies implemented until now have led to little or hardly any success.

The problem of the invention is to provide an orthosis cuff with the help of which the pain of Ledderhose's disease can be alleviated.

For solving said problem, the invention proposes an orthotic cuff which is characterized in that it is made of as stiff material, padded on the inside and encloses the lower leg proximally of the upper ankle joint. The cuff is adapted to fit the outer contour of the lower leg, leaves the upper ankle joint uncovered, and contacts the outwardly

facing area of the lower leg in such a way that that it does not impair the mobility of the upper ankle joint and Achilles tendon and stabilizes the tibiofibular syndesmosis.

An external stabilization of the tibiofibular syndesmosis is achieved with the newly created cuff while preserving, however, the free mobility of the upper ankle joint. Thus the cuff reduces the movements between the distal ends of the tibia and fibula but allows all other movements in the upper ankle joint. What is effected in this manner are certain changes in the sequence of movements in the upper ankle joint as well as in the lifting and rolling movement of the foot. Overstressing is avoided at the same time. This results in improved overall functioning of the entire ankle joint, notably better distribution of the pressure and thus in a greater capacity to support loads, as well as improved posture. In connection with Ledderhose's disease, such improvements lead to substantial alleviation of the pain in the foot joints (tarsal and mesotarsal joints) up to freedom of pain.

In addition to mobility in the upper ankle joint, the no restriction of the mobility of the Achilles tendon may occur. Furthermore, it is important that the cuff is uniformly resting against the surface of the lower leg all the way around without, however, applying any pressure anywhere because such pressure would again lead to pain. For

stabilizing the tibiofibular syndesmosis, i.e. the apparatus of ligaments between the distal ends of the tibia and the fibula, it is entirely sufficient if the relatively stiff cuff rests all around against the lower leg.

Furthermore, it was surprisingly found that this novel orthotic cuff supplies good services for the above reasons also in connection with hypermobile foot joints, so that the wearer of the cuff will less likely sprain the ankle in spite of hypermobile foot joints and can step on the foot when walking, which effects higher stepping stability.

In both cases addressed above, permanent wearing of the cuff at least effects relief of the pain. A change in the pressure conditions can be distinctly observed after the cuff has been worn for a longer period of time. However, since long-term observations over longer periods of time are not yet available, a statement on final healing is not yet secured empirically. However, based on the observations made to date, permanent wearing of the orthotic cuff as defined by the invention safely results in substantial alleviation of the pain. This means that a preliminary goal of the therapy has been accomplished.

Provision is made according to a useful further development of the invention that an anterolateral truss pad is arranged on the inside of the cuff in the region of the

tibiofibular joint. Said truss pad additionally stabilizes especially the tibiofibular joint and in this way further increases the effect of the orthotric cuff in a substantial manner.

The cuff is usefully produced from stiff leather or plastic material and comprises a stiff functional component completely surrounding the lower leg, as well as closing elements that overlap each other on the ends of the functional component. The functional component, which completely surrounds the lower leg without any gaps after the cuff has been attached, can be fixed in the correct position with the help of such closing elements.

The closing elements may be provided in the form of, for example, belts located on the one side and matching buckles positioned on the other side. As an alternative, the closing elements can be provided in the form of ribbons made of Velcro material located on the one and corresponding eyes positioned on the other side. Closing elements provided in such a form permit attaching the cuff with adequate firmness for the stabilization, which is important for the therapeutic success; however, not with excessive tightness, which would cause pain.

According to another embodiment of the orthotic cuff as defined by the invention, provision is made that the cuff is

provided in the form of an open ring made of elastic material, whereby the elasticity forces the cuff into its shape surrounding the lower leg. With such an embodiment of the cuff it is possible to entirely dispense with the use of closing elements such as belts, buckles or Velcro ribbons. The cuff is simply attached to the lower leg with elastic deformation and clings to all sides of the lower leg with elastic rebound force of the ring.

The highly elastic ring may be made of, for example a highly elastic plastic, for example polycarbonate. Alternatively, a highly elastic metal, for example stainless steel may be considered for producing the ring as well.

Exemplified embodiments of the inventions are explained in greater detail in the following with the help of the drawings, in which:

FIG. 1 shows a perspective view of the cuff as defined by the invention from the bottom.

FIG. 2 is a perspective view of the cuff shown in FIG. 1 viewed from the other side.

FIG. 3 is a top view of a layout of the cuff shown in FIGS. 1 and 2.

FIG. 4 is a representation of the foot skeleton combined with the cuff as defined by the invention attached to it; and

FIGS. 6 and 7 are different views of an alternative embodiment of the cuff as defined by the invention.

In FIGS. 1 and 2, the cuff in its entirety is denoted by reference numeral 1. It is substantially comprised of a stiff functional component 2 made of leather or a similarly stiff plastic. Said component surrounds the lower leg and is adapted to the outer contour of the lower leg as accurately as possible. On its distal edge, the stiff functional component is provided with the inwardly molded recesses 2a and 2b, which leave the Achilles tendon and the ankle joint free. Proximally, the functional component has an edge 2c that is smooth for the most part all around.

On the inside and along the edges, the functional component 2 is provided with a padding 3, which consists of a soft and skin-compatible material and which, furthermore is a non-skid material, so that the attached cuff is retained in its position in relation to the lower leg. Furthermore, an anterolateral truss pad 4 is located on the functional component. With the cuff attached, said pad rests externally against the fibula and tibia in the region of the

tibiofibular syndesmosis. This is indicated in FIG. 4 by an arrow 5.

FIGS. 1 to 3 show that the stiff functional component is adequately long for surrounding the lower leg on all sides without any gaps. The closing elements 6, which overlap each other, are arranged on the ends of the functional component 2. As shown in the embodiment according to FIGS. 1 to 3, said closing elements are provided in the form of ribbons made of Velcro material on the one side, and corresponding eyes located on the other side. If necessary, said closing elements 6 also may be belts on the one and corresponding buckles positioned on the other side.

An orthotic cuff with a basically different structure is shown in FIGS. 6 and 7, where the functional component is a ring 7 that is made of elastic material and is open on one side. The elasticity of said material forces the cuff into its shape surrounding the lower leg. Said ring 7 either consists of highly elastic plastic, e.g. polycarbonate, or a highly elastic metal such as, for example stainless steel. The cuff so designed is placed around the lower leg like a clasp and then kept in position by the elastic rebound forces of the ring 7. The present embodiment of the cuff does not require any closing elements.

Claims

1. An orthosis cuff for the treatment or therapy of Ledderhose's disease or hypermobile foot joints, characterized by a cuff (1) made of stiff material, said cuff surrounding the lower leg proximally of the upper ankle joint, being padded on the inside, adapted to the outer contour of the lower leg and resting against the outer side of the lower leg in such a manner that the mobility of the upper ankle joint and the Achilles tendon is not restricted and the tibiofibular syndesmosis is stabilized.

2. The orthosis cuff according to claim 1, characterized in that an anterolateral truss pad is arranged on the inside of the cuff (1) in the region of the tibiofibular joint.

3. The orthosis cuff according to claims 1 and 2, characterized in that the cuff (1) is produced from stiff leather or plastic and comprises a stiff functional component (2) surrounding the lower leg on all sides, as well as closing elements (6) overlapping each other and being located on the ends of the functional component (2).

4. The orthosis cuff according to claim 3, characterized in that the closing elements (6) are belts on the one and corresponding buckles on the other side.

5. The orthosis cuff according to claim 3, characterized in that the closing elements (6) are ribbons made of Velcro material on the one and corresponding eye on the other side.

6. The orthosis cuff according to claims 1 and 2, characterized in that the cuff (1) is a ring (7) open on one side and made of elastic material whose elasticity forces the ring into its form surrounding the lower leg.

7. The orthosis cuff according to claim 6, characterized in that the ring (7) consists of highly elastic plastic, in particular polycarbonate.

8. The orthosis cuff according to claim 6, characterized in that the ring (7) consists of highly elastic metal, in particular stainless steel.

R:\Ingrid\email\Wolff, O. et al PCT - transl.

PCT

WELTORGANISATION FÜR GEISTIGES EIGENTUM
Internationales Büro



INTERNATIONALE ANMELDUNG VERÖFFENTLICHT NACH DEM VERTRAG ÜBER DIE
INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT)

<p>(51) Internationale Patentklassifikation ⁷ : A61F 5/01</p>	<p>A1</p>	<p>(11) Internationale Veröffentlichungsnummer: WO 00/66046 (43) Internationales Veröffentlichungsdatum: 9. November 2000 (09.11.00)</p>
<p>(21) Internationales Aktenzeichen: PCT/EP99/02943 (22) Internationales Anmeldedatum: 30. April 1999 (30.04.99) (71)(72) Anmelder und Erfinder: WOLFF, Oswald [DE/DE]; Bonner Logsweg 32, D-53123 Bonn (DE). (72) Erfinder; und (75) Erfinder/Anmelder (nur für US): VON MAXIMILIAN-WOLFF, Dorothea [DE/DE]; Limpericher Strasse 120, D-53225 Bonn (DE). (74) Anwalt: SCHNEIDERS & BEHRENDT; Huestrasse 23, D-44787 Bochum (DE).</p>		<p>(81) Bestimmungsstaaten: AU, CA, JP, US, europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Veröffentlicht Mit internationalem Recherchenbericht.</p>

(54) Title: ORTHOSIS CUFF

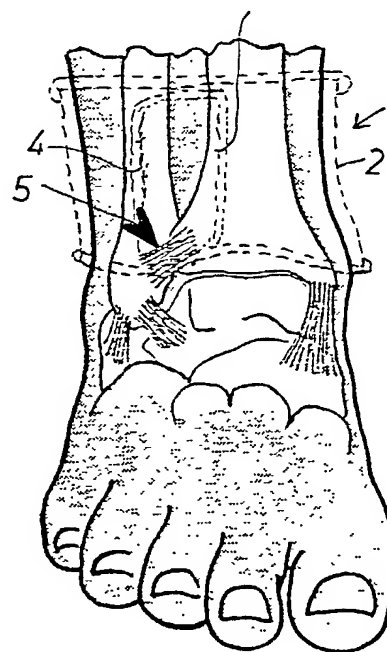
(54) Bezeichnung: ORTHESE-MANSCHETTE

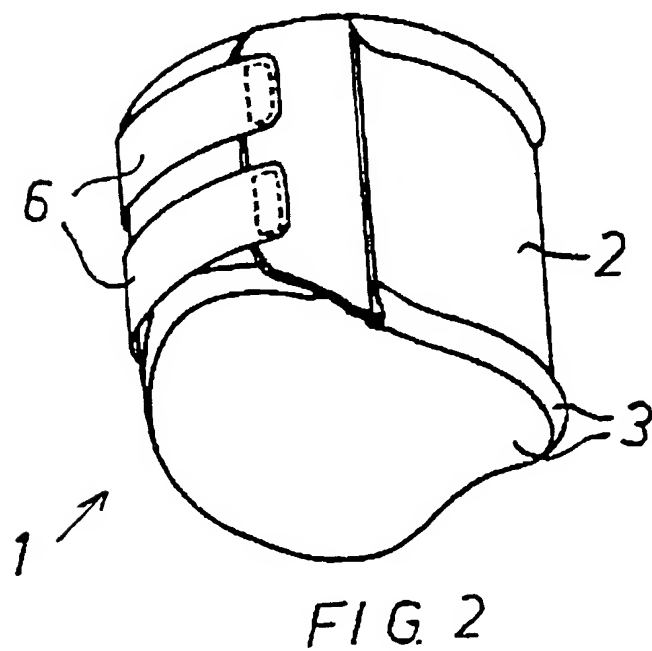
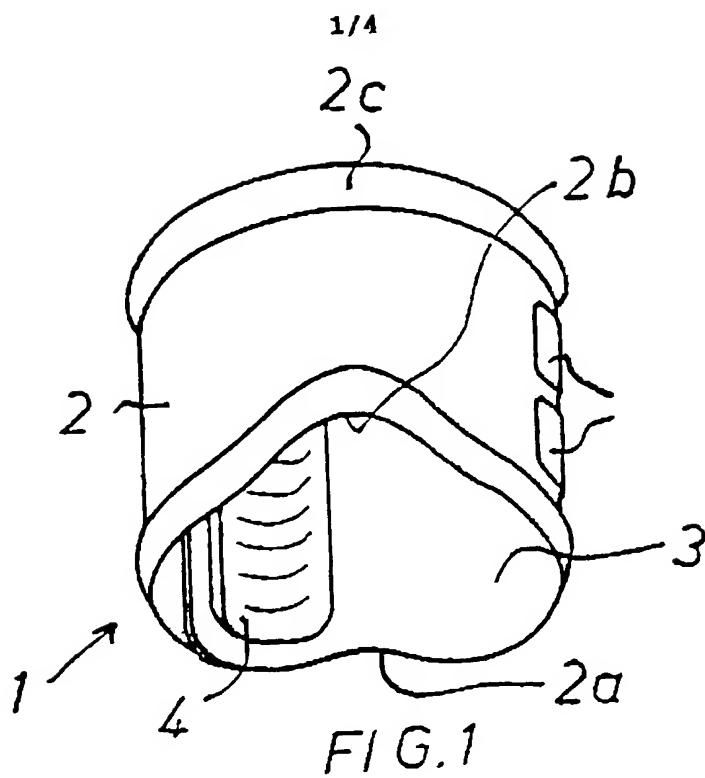
(57) Abstract

The invention relates to an orthotic cuff for the treatment of Ledderhose's disease or hypermobile ankle joints, characterized by a cuff (1) which is made of a stiff material, padded on the inside and encloses the calf proximally of the upper ankle joint. Said cuff is adapted to fit the outer contour of the calf, leaves the upper ankle joint uncovered and contacts the outward facing area of the calf in such a way that it does not impair the mobility of the upper ankle joint and Achilles tendon and stabilizes the tibiofibular syndesmosis. The above orthotic cuff reduces movement between the distal ends of the tibia and fibula but permits allow other movements of the upper ankle joint. This modifies the sequence of movements in the upper ankle joint as well as the lifting and rolling movement of the foot when walking, and results in improved overall functioning of the ankle joint, notably a better distribution of pressure and thus greater capacity to support loads, as well as improved posture. In patients with Ledderhose's disease these improvements results in a significant decrease in ankle pain.

(57) Zusammenfassung

Die Erfindung betrifft eine Orthese-Manschette für die Behandlung bzw. Therapie von Moburs-Ledderhose oder hypermobilen Fussgelenken, gekennzeichnet durch eine den Unterschenkel proximal vom oberen Sprunggelenk umgebende, innen gepolsterte Manschette (1) aus steifem Material, die der äusseren Kontur des Unterschenkels angepasst ist, das obere Sprunggelenk freilässt und derart an der Aussenseite des Unterschenkels anliegt, dass die Beweglichkeit des oberen Sprunggelenkes und der Achillessehne nicht eingeschränkt wird und die fibulo-tibiale Syndesmose stabilisiert wird. Diese Orthese-Manschette reduziert die Bewegungen zwischen den distalen Enden von Tibia und Fibula, lässt aber alle anderen Bewegungen im oberen Sprunggelenk zu. Bewirkt werden damit gewissen Veränderungen des Bewegungsablaufes im oberen Sprunggelenk sowie im Abrollverhalten, des gesamten Fussgelenkes, nämlich eine bessere Verteilung der Belastungsdrücke und somit eine höhere Belastbarkeit sowie eine Verbesserung der Standhaltung. Diese Verbesserungen in der Funktionalität führen bei Morbus des Fusses. In Ergebnis erreicht man eine verbesserte Funktionalität Ledderhose zu einer wesentlichen Linderung der Beschwerden im Fussgelenk.





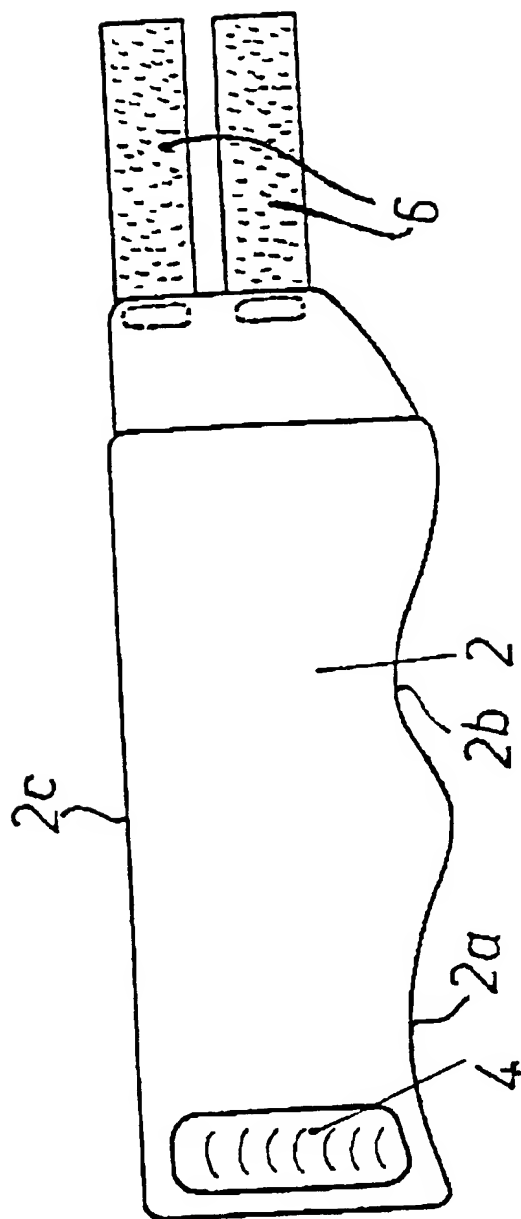


FIG. 3

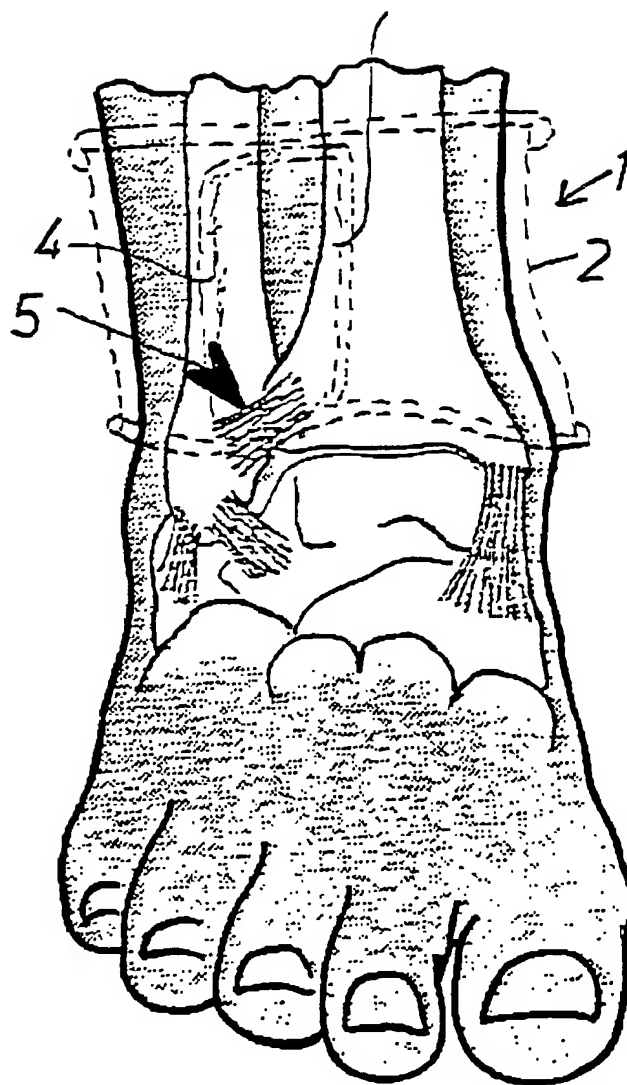


FIG. 4

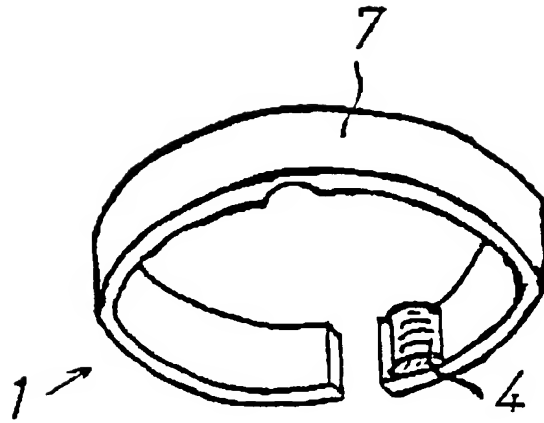


FIG. 5

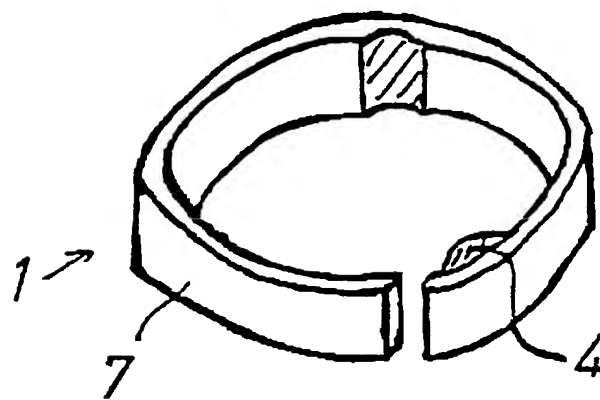


FIG. 6

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY
(Includes Reference to PCT International Applications)

ATTORNEY'S DOCKET NUMBER
WOLFF, O. ET AL-1 (PCT)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ORTHOSIS CUFF

the specification of which (check only one item below):

- ☐ is attached hereto.
- ☐ was filed as United States application
Serial No. _____
on _____,
and was amended
on _____ (if applicable).
- ☒ was filed as PCT international application
Number PCT/EP99/02943
on April 30, 1999,
and was amended under PCT Article 19
on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY (Includes Reference to PCT International Applications)				ATTORNEY'S DOCKET NUMBER WOLFF, O. ET AL-1 (PCT)	
I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.					
(Application Number)		(Filing Date)			
I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:					
PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. 120:					
U.S. APPLICATIONS			STATUS (Check One)		
U.S. APPLICATION NUMBER	U S FILING DATE		PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLICATION NO	PCT FILING DATE	U S SERIAL NUMBERS ASSIGNED (if any)			
PCT/EP99/02943	April 30, 1999	10/018,504		X	
POWER OF ATTORNEY As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith (List name and registration numbers).					
<div style="display: flex; justify-content: space-between;"> <div> KURT KELMAN, Registration No. 18,628 ALLISON C. COLLARD, Registration No. 22,532; EDWARD R. FREEDMAN, Registration No. 26,048; ELIZABETH COLLARD RICHTER, Registration No. 35,103 </div> <div> WILLIAM C. COLLARD, Registration No. 38,411 FREDERICK J. DORCHAK, Registration No. 29,298 ROBERT W. GRIFFITH, Registration No. 48,956 </div> </div>					
Send Correspondence to: COLLARD & ROE, P.C. 1077 Northern Boulevard Roslyn, New York 11576			Customer No. 25889		Direct Telephone Calls to. (name and telephone number) (516) 365-9802
2	FULL NAME OF INVENTOR	FAMILY NAME WOLFF	FIRST GIVEN NAME OSWALD	SECOND GIVEN NAME	
0	RESIDENCE & CITIZENSHIP	CITY D-53123 BONN	STATE OR FOREIGN COUNTRY GERMANY DEX	COUNTRY OF CITIZENSHIP GERMANY	
1	POST OFFICE ADDRESS	POST OFFICE ADDRESS BONNER LOGSWEG 32	CITY D-53123 BONN	STATE & ZIP CODE/COUNTRY GERMANY	
2	FULL NAME OF INVENTOR	FAMILY NAME VON MAXIMILIAN-WOLFF	FIRST GIVEN NAME DOROTHEA	SECOND GIVEN NAME	
0	RESIDENCE & CITIZENSHIP	CITY D-53225 BONN	STATE OR FOREIGN COUNTRY GERMANY	COUNTRY OF CITIZENSHIP GERMANY	
2	POST OFFICE ADDRESS	POST OFFICE ADDRESS LIMPERICHER STRASSE 120	CITY D-53225 BONN	STATE & ZIP CODE/COUNTRY GERMANY	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.					
SIGNATURE OF INVENTOR 201			SIGNATURE OF INVENTOR 202		
DATE 04.03.2002			DATE 06.03.2002		